Amendment to the Claims

Claims 1 - 13 (Cancelled).

14. (Currently Amended) A method of measuring a blood flow rate, the method comprising:

(a) passing a guide wire through an indicator lumen in an elongate catheter body to pass a portion of the guide wire through a terminal port of the indicator lumen;

(b) passing the indicator through the indicator lumen to pass from the elongate catheter body through the terminal port and an injection port intermediate the terminal port and a proximal end of the catheter body; and

(c) ~~measuring the blood flow rate based on the~~ calculating the blood flow rate as a function of passage of the indicator through the terminal port.

Claim 15 (Cancelled).

16. (Previously Presented) The method of Claim 14, further comprising passing the guide wire through a reduced cross sectional area of the indicator lumen.

17. (Previously Presented) The method of Claim 14, further comprising passing the indicator through the indicator lumen to contact a portion of the guide wire.

18. (Previously Presented) The method of Claim 14, further comprising passing the guide wire through a reduced cross sectional area of the indicator lumen to increase a flow of the indicator through the injection port.

19. (Currently Amended) The method of Claim 14, wherein calculating the blood flow rate comprises ~~compensating for passage of the indicator through terminal port includes~~ compensating for a volume of the indicator passing through the terminal port.

20. (Currently Amended) The method of Claim 14, wherein ~~measuring the blood flow rate corresponds to~~ the calculated blood flow rate is described by a relationship $Q = \frac{k(T_b - T_i) \cdot V(1-a)}{S}$, where Q is a blood flow rate, k is a coefficient related to thermal capacity of a measured flow and the indicator, T_b is a temperature of a measured flow prior to injection of the indicator, T_i is a temperature of the indicator prior to entering the measured flow, V is a volume of the indicator, S is an area under a temperature versus time curve resulting from a mixing of the indicator and a is a portion of the indicator passing through the terminal port.

21. (Withdrawn-Currently Amended) The method of Claim 14, wherein ~~compensating for passage of the indicator through terminal port includes~~ calculating the blood flow rate comprises compensating for a thermal effect of the indicator passing through the terminal port.

22. (Withdrawn-Currently Amended) The method of Claim 14, wherein ~~compensating for passage of the indicator through terminal port includes~~ calculating the blood flow rate comprises compensating for a thermal effect of the indicator passing through the terminal port corresponding to the relationship $Q = \frac{k(T_b - T_i) \cdot V(1-a)}{(S_m - S_{in})}$, where Q is a blood flow rate, k is a coefficient related to thermal capacity of a measured flow and the indicator, T_b is the temperature of the measured flow prior to injection, T_i is the temperature of the indicator prior to entering the measured flow, V is the volume of the indicator, S_m is the total area under the temperature versus time curve resulting from the mixing of the indicator, S_{in} is the part of the area under the dilution curve related to a cooling thermal change of a sensor inside the catheter body and a is the portion of the indicator passing through the terminal port.

Claims 23 - 27 (Cancelled).

28. (New) The method of Claim 14, further comprising sensing the indicator intermediate the terminal port and the injection port.

29. (New) A method of measuring a blood flow rate, comprising:

(a) passing a guide wire through an indicator lumen in an elongate catheter body to pass a portion of the guide wire through a terminal port of the indicator lumen;

(b) passing the indicator through the indicator lumen to pass from the elongate catheter body through the terminal port and an injection port intermediate the terminal port and a proximal end of the catheter body;

(c) sensing the indicator intermediate the terminal port and the injection port; and

(d) calculating the blood flow rate based on passage of the indicator through the terminal port.